

# A CHRISTMAS TREE STRUCTURE OF DECORATING LAMP

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

The present invention relates to a Christmas tree structure of  
5 decorating lamp, and more particularly to a Christmas tree-shaped  
decorating lamp without exposed cord.

### 2. Description of Prior Art

In accordance with the conventional Christmas tree attached with  
decorating lamp, it is comprised of a string of decorating lamps, several  
10 branches and a main trunk, wherein said branches branch out from the  
main trunk in radial around, and said string of decorating lamps is put  
over the branches of a traditional Christmas tree around by the user self  
so that it demands much time and labor, especially the larger to be deco-  
rated, the more difficult to be encountered, and the bared cords of said  
15 string of the decorating lamps hung over the tree are exposed into the air  
so as to make the Christmas tree appear into a fearful mess especially in  
daytime, it not only affects the whole outward appearance, but also the  
value.

For overcoming this shortcoming, the inventor had invented a  
20 string of decorating lamps hiding cords into the tree's branches and trunk,  
which had been referred in application and obtained the permission of  
USA Patent No.: 6,030,670 and Chinese Patent No.: CN97224263.5 and  
CN97884560.X, in which the shortcomings such like mess appearance  
caused by the exposed bared cords and taking too much time and labor by  
25 putting over the cords had been overcome at all, but that invention can  
not suit for locating a string of decorating lamps over an artificial

Christmas tree, whether the conventional branches of the Christmas tree wrapped up by a needle-shaped leaves belt molded the twisted cords into, or by needle-shaped leaves molded the twisted cords into directly, they do not have a hollow inside for hiding the cords of said string of decorat-

5 ing lamps in.

## OBJECTS AND SUMMARY OF THE INVENTION

It is therefore a main object of the present invention to provide a Christmas tree structure of decorating lamp, which can hide most of cords so as to improve the goods outward appearance and valuation.

5 It is a next object of the present invention to provide a Christmas tree structure of decorating lamp, in which the string of decorating lamps can be pre-located on the branches for avoiding the trouble of putting over and wiring the cords by the user self.

10 It is a another object of the present invention to provide a Christmas tree structure of decorating lamp, in which a local connection unit is built coordinating to the number and position of said branch pre-attached with decorating lamps for plugging in or out so as to make store and transport more convenient.

15 The present invention is comprised of a proper number of segments, wherein each segment includes more than one palm-shaped branches, in which the cords is located and hidden on a core shaft by wrapping a belt to fasten a cluster of the needle-shaped leaves synchronously, or by binding a cluster of the needle-shaped leaves molded the cords into directly synchronously to construct a basic unit of the Christmas tree-shaped decorating lamp to meet the functions of improving  
20 whole valuation and facility of transportation.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a scheme showing a palm-shaped branch of the present invention.

Fig. 2 is a solid exploded view showing binding the cords and cluster of needle-shaped leaves on the core shaft of the palm-shaped branch of the present invention.

Fig. 3 is a solid view showing the palm-shaped branches in on a segment attaching on the main trunk in the first embodiment of the present invention.

Fig. 4 is a solid view showing a combined state in the first embodiment of the pre-sent invention.

Fig. 5 is a scheme showing the second embodiment of the present invention.

## DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to Fig. 1 and Fig. 2, several palm-shaped branches 32 are built on the cord 31 of a string of decorating lamps 3 provided by the present invention, wherein the shape of said palm-shaped branch 32 coordinates to the branch 2's about, and in its tip end a bulb 33 is connected in electric connection, and the lamp-holder of said bulb 33 has a retainer 331 for fastening on a cluster of the needle-shaped leaves 22, and the cords coordinating to the core shaft 21 of the branch is located and hidden by binding a belt 4 to fastening a cluster of the needle-shaped leaves on said core shaft 21 of said branch synchronously. Said cords 31 of the decorating lamps 3 has a couple of plug 34 and socket 35 connected on the both end separately for series connection, thereby extending said Christmas tree by adding more than one unit of said branch 2 in series connection to meet the necessary of length of said branch 2 in each segment.

Referring to Fig. 3 and Fig. 4, the first embodiment of the present invention is shown, therein said palm-shaped branches 32 of said string of decorating lamps 3 are arranged in horizontal array around the trunk, and in stepped construction from the bottom to the top circularly and upward, or from the top to the bottom downward, but in each level said branch 2 is retained on said trunk 1 and the string of decorating lamps 3 of each level via the plug connecting with said cords 31 connect to the power source on said trunk 1, or the socket 35 located on the last level.

In the second embodiment shown in Fig. 5, said palm-shaped branches 32 of said string of decorating lamps 3 are arranged in vertical array along the trunk, each of them is retained on the different level but the same orientation on the branches 2, around the trunk different orienta-

tion's strings take the same way of location, and between them by the plugs 34 and the sockets 35 they are connected in series connection.

For concerning the convenience of knocked-down shipping and reinstalling of said branches 2 with said trunk 1, all or part of the palm-shaped branches 32 of said string of decorating lamps 3 in the same branch 2 consist of a local connection unit, or all or part in the same orientation consist of a local connection unit in the branch 2. Due to the local connection units, the whole tree can be taken apart as in shipping so that the production cost is reduced, and the user just need to reinstall every local connection unit following the diagram, then cut in the power source at all in the desired site.

Referring to Fig. 1 to Fig. 5, said lamp-holder holding said bulb 33 has a retainer 331 for fastening on the tip end of the cluster of the needle-shaped leaves 22, and the cords coordinating to the needle-shaped leaves 22 of said palm-shaped branch 32 can be hidden or hung over the bottom side said cluster of needle-shaped leaves 22.